

CLAIMS

1. An information processing apparatus coupled to another information processing apparatus through a network and carrying out information processing in response to a predetermined command, the information processing apparatus characterized by comprising:

5 capability exchange means for collecting information regarding an operating status from the another information processing apparatus and creating an apparatus information table; and

10 apparatus specifying means for comparing information regarding a resource required to execute a command, with information regarding the operating status in the apparatus information table if the command is issued, and specifying an information processing apparatus capable of executing the command.

15 2. The information processing apparatus according to claim 1, characterized in that:

the capability exchange means collects information processing capability data of the another information processing apparatus, and saves 20 the information processing capability data in the apparatus information table; and

25 the apparatus specifying means compares the information processing capability required to execute the command, with the information processing capability of the another information processing apparatus, and specifies the information processing apparatus capable of executing the command.

3. The information processing apparatus according to claim 1, characterized in that:

the capability exchange means collects memory capacity data of the another information processing apparatus, and saves the data in the apparatus information table; and

the apparatus specifying means compares a memory capacity required to execute the command, with the memory capacity of the another information processing apparatus, and specifies the information processing apparatus capable of executing the command.

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4. The information processing apparatus according to claim 1, characterized in that:

the capability exchange means collects capacity data of external record means of the another information processing apparatus, and saves the data in the apparatus information table; and

10 the apparatus specifying means compares a capacity of external record means required to execute the command, with the capacity of the external record means of the another information processing apparatus, and specifies the information processing apparatus capable of executing the command.

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5. The information processing apparatus according to claim 1, characterized in that:

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the capability exchange means collects an information processing apparatus type identifier which can specify a function of the another information processing apparatus, and saves the identifier in the apparatus information table; and

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the apparatus specifying means compares a function required to execute the command, with the information processing apparatus type identifier of the another information processing apparatus, and specifies the information processing apparatus capable of executing the command.

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6. The information processing apparatus according to claim 1, characterized in that:

the capability exchange means transmits the command to the information processing apparatus specified by the apparatus specifying

means, and requests execution thereof.

7. The information processing apparatus according to claim 1, characterized in that:

5 the capability exchange means collects information regarding an operating status of the another information processing apparatus and updates the apparatus information table if connection between the network and the another information processing apparatus is changed.

10 8. The information processing apparatus according to claim 1, characterized in that:

the capability exchange means collects information regarding operating status of the another information processing apparatus at a predetermined time interval, and updates the apparatus information table.

15 9. The information processing apparatus according to claim 1, characterized in that:

the another information processing apparatus has a plurality of processor means for processing the command; and

20 the capability exchange means collects information regarding an operating status of each of the plurality of processor means, and saves these information in the apparatus information table.

25 10. The information processing apparatus according to claim 1, characterized by further comprising:

a manager means for determining whether or not another information processing apparatus is coupled to the network;

30 wherein the manager means carrying out a process of the capability exchange means if the manager means determines that another information processing apparatus is coupled to the network.

11. An information processing method with which an information processing apparatus coupled to another information processing apparatus through a network carries out information processing in response to a predetermined command, the method characterized by comprising:

5 a capability exchange step of collecting information regarding operating status from the another information processing apparatus, and creating an apparatus information table; and

10 an apparatus specification step of comparing information regarding a resource required to execute the command with the information regarding operating status in the apparatus information table, and specifying an information processing apparatus capable of executing the command if the command is issued.

12. The information processing method according to claim 11,
15 characterized by further comprising:

an execution request step of transmitting the command to the information processing apparatus specified in the apparatus specification step, and requesting execution thereof.

20 13. The information processing method according to claim 11,
characterized in that:

the another information processing apparatus includes a plurality of processor means for processing the command, and

25 information regarding operating status of each of the plurality of processor means is collected and saved in the apparatus information table in the capability exchange step.

14. The information processing method according to claim 11,
characterized by further comprising:

30 a management step of determining whether or not another information processing apparatus is coupled to the network,

characterized in that the capability exchange step is performed if determined in the management step that the another information processing apparatus is coupled to the network.

5 15. An information processing system in which one information processing apparatus and another information processing apparatus are coupled through a network, and information processing is carried out in response to a predetermined command, characterized in that:

the one information processing apparatus includes:

10 capability exchange means for collecting information regarding operating status from the another information processing apparatus, and creating an apparatus information table; and

15 an apparatus specifying means for comparing information regarding a resource required to execute the command, with the information regarding the operating status in the apparatus information table, and for specifying the information processing apparatus capable of executing the command if the command is issued.

20 16. The information processing system according to claim 15, characterized in that:

the capability exchange means transmits the command to the information processing apparatus specified by the apparatus specifying means, and requests execution thereof.

25 17. The information processing system according to claim 15, characterized in that:

the another information processing apparatus includes a plurality of processor means for processing the command; and

30 the capability exchange means collects information regarding operating status of each of the plurality of processor means, and saves these

information in the apparatus information table.

18. The information processing system according to claim 15, characterized in that:

5 the one information processing apparatus further includes a manager means for determining whether or not another information processing apparatuses is coupled to the network, and performs a process of the capability exchange means if the manager means determines that the another information processing apparatuses is coupled to the network.

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19. A computer program for information processing for causing a computer to carry out information processing in response to a predetermined command in an information processing system in which one information processing apparatus is connected through a network to another information processing apparatus, the computer being provided for the one information processing apparatus and caused to function as:

15 capability exchange means for collecting information regarding operating status from the another information processing apparatus, and creating an apparatus information table, and

20 apparatus specifying means for comparing information regarding a resource required to execute the command, with the information regarding operating status of the apparatus information table, and for specifying the information processing apparatus capable of executing the command if the command is issued.

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20. The computer program for information processing according to claim 19, characterized in that:

30 the computer is further caused to function as means for transmitting the command to a specified information processing apparatus and requesting execution thereof.

21. The computer program for information processing according to claim 19, characterized in that:

the another information processing apparatus includes a plurality of processor means for processing the command; and

5 the computer program for information processing causes the computer to function as the capability exchange means for collecting information regarding operating status of each of the plurality of processor means, and saving these information in the apparatus information table.

10 22. The computer program for information processing according to claim 19, characterized in that:

the computer program for information processing further causes the computer to function as manager means for determining whether or not another information processing apparatus is coupled to the network, and

15 the computer program for information processing further causes the computer to function as the capability exchange means if determined, by way of a function as the manager means, that another information processing apparatuses is coupled to the network.